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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/528,323	05/05/2005	Donatienne Denni-Dischert	PC/4-32676A	6762

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CORPORATE INTELLECTUAL PROPERTY
ONE HEALTH PLAZA 104/3
EAST HANOVER, NJ 07936-1080

EXAMINER	
CHUNG, SUSANNAH LEE	
ART UNIT	**PAPER NUMBER**
1626	

MAIL DATE	DELIVERY MODE
11/05/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/528,323	DENNI-DISCHERT ET AL.	
	Examiner	Art Unit	
	Susannah Chung	1626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 October 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *10/14/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claims 1-13 are pending in the instant application.

Priority

This application is a 371 of PCT/EP03/10543, filed on 09/22/2003.

Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d) by application no. 0222056.4 filed in the UK Patent Office on 09/23/2002, which papers have been placed of record in the file. The application names an inventor or inventors named in the prior application.

Information Disclosure Statement

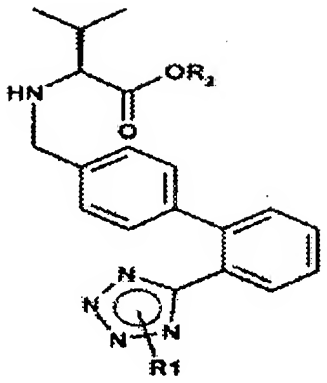
The information disclosure statement (IDS), filed on 10/14/2005 has been considered. Please refer to Applicant's copy of the 1449 submitted herewith.

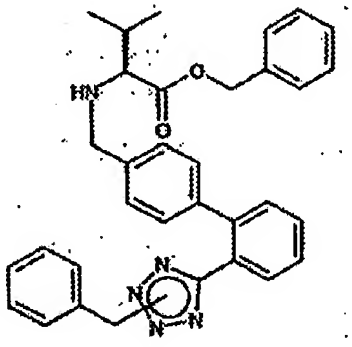
Claim Rejections - 35 USC § 102

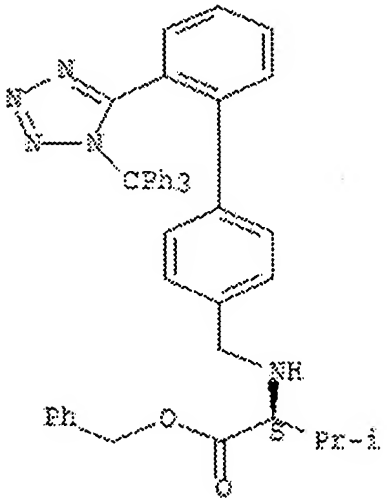
The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 8 is rejected under 35 U.S.C. 102(b) as being anticipated by Buhlmayer, et al (U.S. Pat. No. 5,399,578 (`578 Patent)).

Applicant claims a compound of formula,  , wherein R1 is hydrogen

or a tetrazole protecting group and R2 is hydrogen or a carboxy protecting group, wherein an example of this compound is shown in the instant specification on page 30, Example 5, of the compound of formula,  , wherein R1 is a tetrazole protecting group, i.e. phenylmethyl, and R2 is a carboxy protecting group, i.e. phenylmethyl. Buhlmayer discloses the instantly claimed compound, wherein R1 is a tetrazole protecting group, i.e. triphenylmethyl, and R2 is a carboxy protecting group, i.e. phenylmethyl, which reads on the instant claims. (See `578 Patent, Column 50, approximately lines 46-48, Example 55(a), N-[(2'-(1-Triphenylmethyltetrazol-5-yl)biphenyl-4-ylmethyl]-(L)-valine benzyl ester, CAS RN 137864-45-0,



Claim Rejections - 35 USC § 103

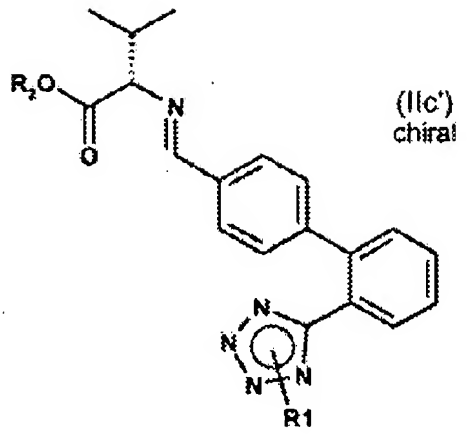
The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

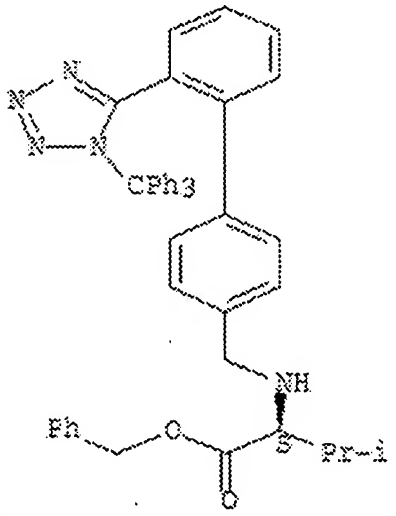
Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Buhlmayer, et al (U.S. Pat. No. 5,399,578 (`578 Patent)).



(IIc')
chiral

Applicant claims a compound of formula,

Determination of the scope and content of the prior art (MPEP § 2141.01)



Buhlmayer teaches a compound of formula , which corresponds to Applicants instant claim 9, wherein R1 is a tetrazole protecting group, i.e. triphenylmethyl, and R2 is a carboxy protecting group. (See '578 Patent, Column 50, approximately lines 46-48, Example 55(a), N-[(2'-(1-Triphenylmethyltetrazol-5-yl)biphenyl-4-ylmethyl]-(L)-valine benzyl ester, CAS RN 137864-45-0).

Ascertainment of the difference between the prior art and the claims (MPEP § 2141.02)

The difference between the prior art of Buhlmayer and the instant claims is that the prior art compound has a single bond, while the instant claim has a double bond and that the prior art compound is racemic or S, but does not explicitly disclose the R form.

Finding of prima facie obviousness – rationale and motivation (MPEP § 2142-2413)

However, in the absence of showing unobvious results, it would have been obvious to one of ordinary skill in the art at the time of the invention when faced with Buhlmayer to make products useful as angiotensin receptor blockers, wherein a single bond is substituted with a double bond. In addition, the stereochemistry of the instantly claimed compound may not be the preferred enantiomer, but Buhlmayer does disclose the racemic compound and the S-enantiomer. A stereoisomer is not patentable over its known racemic mixture unless it possesses unexpected properties not possessed by the racemic mixture. In re Anthony, 162 USPQ 594, 596 (1969) and In re Adamson, 125 USPQ 233, 234 (1960).

Guided by the teaching of Buhlmayer one skilled in the art would be able to make similar compounds. The motivation would be to prepare similar compounds that are pharmacologically active compounds that are angiotensin receptor blockers.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

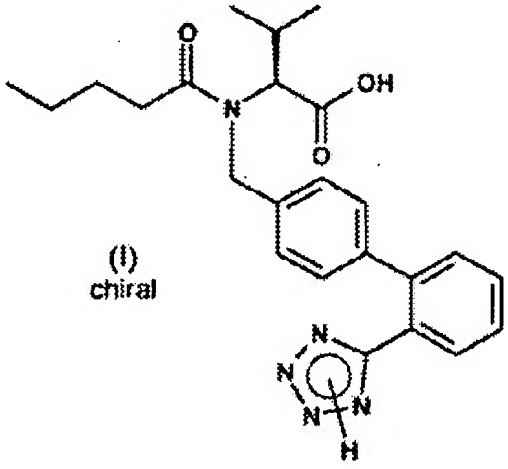
The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

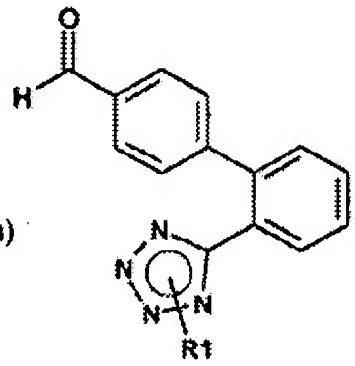
Claims 1-7 and 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Markwalder et al., U.S. Pat. Num. 5,260,325 (`325 Patent).

Applicants instant elected invention teaches a process for preparing a compound of



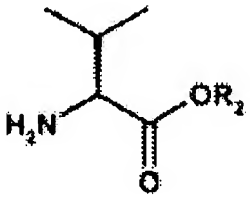
(I)
chiral

formula by reacting a carboxaldehye of formula (IIa),

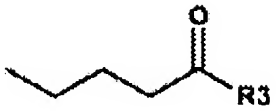


(IIa)

, with a compound of formula (IIb),

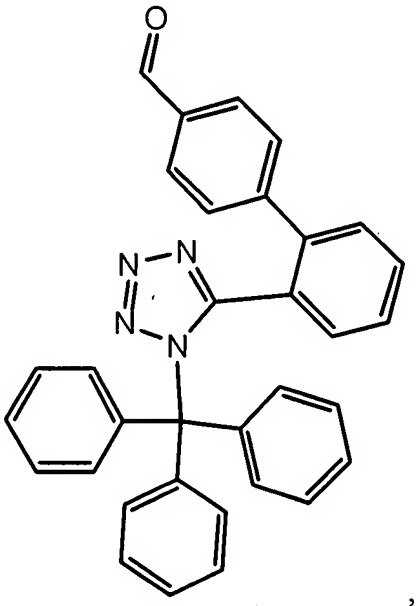


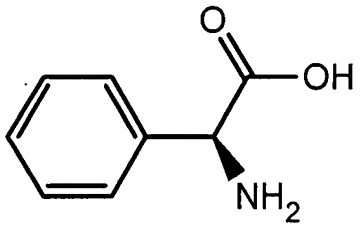
, with

a compound of formula (IId), 

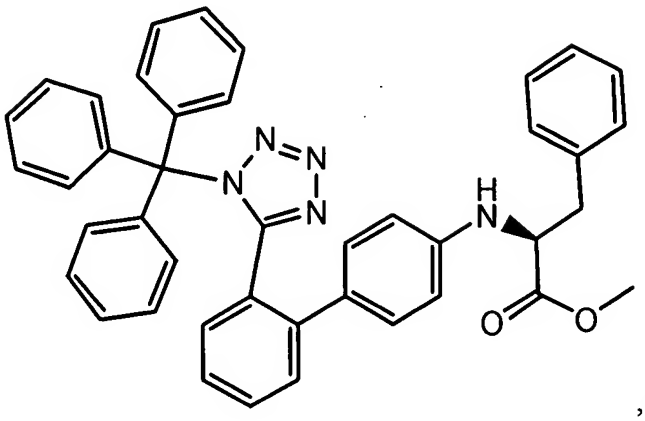
, with the option of removing protecting groups if present.

Determination of the scope and content of the prior art (MPEP § 2141.01)

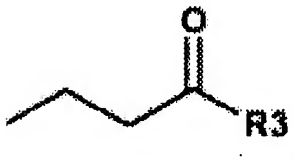
Markwalder teaches a process for preparing a compound of formula, N-butyryl-[2'-(triphenylmethyltetrazol-5-yl)biphenyl-4-yl]-phenylalanine methyl ester, by reacting [2'-(triphenylmethyltetrazol-5-yl)biphenyl-4-yl]carboxaldehyde, 

, with phenylalanine, 

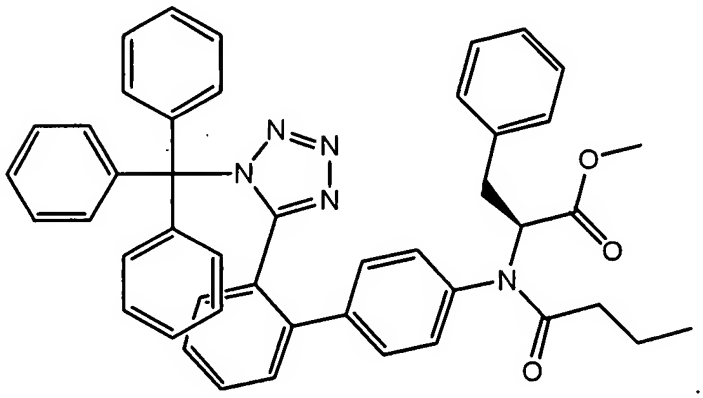
, to yield a compound of formula, [2'-(triphenylmethyltetrazol-5-yl)biphenyl-4-yl]-phenylalanine methyl ester,



, and reacting it with n-butyryl,

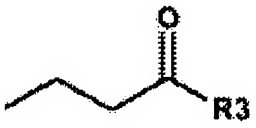


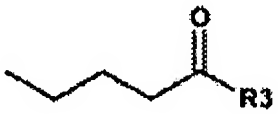
, to form the final product N-butyryl-[2'-(triphenylmethyltetrazol-5-yl)biphenyl-4-yl]-phenylalanine methyl ester,



. (See `325 Patent, Columns 14-16, starting approximately line 53, Example 2, Parts A-D, wherein the phenyl protecting group is shown. `325 Patent, Table 2, in Column 20 teaches that the protecting group can be benzyl, **i-butyl**, or ethyl. Therefore, the above compound can also be made with the protecting groups of i-butyl and ethyl as well as phenyl.)

Ascertainment of the difference between the prior art and the claims (MPEP § 2141.02)

The difference between the prior art of Markwalder and the instant claims is that the prior art process uses n-butyryl, 

, while the instant application uses the compound of formula (IIb), n-pentyryl, 

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Finding of prima facie obviousness - rationale and motivation (MPEP § 2142-2413)

One skilled in the art would have found the claimed process prima facie obvious because the instantly claimed process and the process in Markwalder are describing the same process. The difference is hydrogen versus methyl in the reagent used to acylate the compound, i.e. butyryl versus pentyryl. It is well established that hydrogen and methyl are deemed obvious variants. In re Wood, 199 USPQ 137.

One skilled in the art would deem the change in reagents from butyryl to pentyryl obvious and mere optimization because they only vary by an additional carbon in the already existing carbon chain. It is routine experimentation for one skilled in the art to change the length of a carbon chain in a reagent. Absent unexpected results, the instant process and results are obvious in view of the teachings in Markwalder.

Telephone Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susannah Chung whose telephone number is (571) 272-6098. The examiner can normally be reached on M-F, 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph McKane can be reached on (571) 272-0699. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

REBECCA ANDERSON
PRIMARY EXAMINER

SLC

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PRIMARY EXAMINER

Joseph K. McKane
Supervisory Patent Examiner
Art Unit 1626, Group 1620
Technology Center 1600

Date: 30 October 2007